

BNS- PRELIMINARY EXAM CHECK SHEET (2016):

Preamble: Successful completion of this exam is required prior to Ph.D. candidacy. The purpose of the exam is to allow students to demonstrate expertise in their chosen field within Behavioral Neuroscience. In preparing for this exam, students are expected to become immersed in the literature that defines their research domain. The goal is to acquire expertise in their area equivalent or superior to that of any faculty member and thus develop into research colleagues. The guidelines were designed to allow this difficult task to have considerable individual tailoring that will allow students to express their expertise, as well as provide consistency in both effort and evaluation.

Student: _____

Faculty Mentor: _____

Today's Date: _____

Committee Members (all BNS members):

1. Chair (Mentor): _____
2. _____
3. _____

Part 1. Comprehensive written exam: The breadth component of the comprehensive exam will consist of a two-day written exam period (4-hrs each day) in which students entering their 3rd year will prepare answers to four questions.

A. Breadth of Neuroscience Knowledge: Two of the questions will be designed to test the student's command of core neuroscience concepts, his/her ability to integrate information across the curriculum, to generate plausible hypotheses and to design experiments to test these hypotheses. The general BNS area faculty will prepare the two core neuroscience concept questions requiring students to integrate information across the main content areas and levels of analyses: 1) Neurophysiology, 2) Neurochemistry, 3) Neuroanatomy and 4) Psychopharmacology. Each question will have a different emphasis, asking students to consider a current critical issue in neuroscience.

B. Breadth of selective Behavioral Neuroscience Systems Knowledge: The remaining two questions will be from topic areas related to the student's general area of research interest (e.g., the neuroscience of reward, learning, neurobiology of disease or perception). In preparation for the exam, the student will pursue directed readings under the independent supervision of the prelim committee. Faculty members will work with the student to develop a reading list (10-15 papers per topic) for the course of studying for these questions. The reading list should be developed by the end of the spring semester of the second year.

**The answer to each question should be between 4-6 typed double-spaced pages in length, excluding references. Students can bring a copy of their reading list. However, students are expected to work independently when preparing their answers. Specifically, students are not to collaborate with other students, faculty, or colleagues in preparing their answers and are expected to strictly adhere to professional ethical standards that prohibit plagiarism. All documents will be processed through turnitin.com*

**Grades (High pass, pass, fail) will be based on the factual accuracy, completeness and clarity of the answers and a demonstrated ability to*

synthesize, critically evaluate and integrate information. A high pass is distinguished from a pass by the fact that the answer shows exceptional clarity and synthesis, greater than normal insight into the literature and a strong grasp of the strengths and weaknesses of the approaches often used to address the topic.

**Remediation: If a student fails one question, he/she will be permitted to remediate that question. The student can use the written critique provided by the grading committee to formulate a revised answer but is not permitted to consult committee members involved in the remediation. The student will have one week from the time they have received their graded questions and critiques to prepare a revised answer. If the student receives a passing grade on the remediated question then he/she has passed the standardized component of the comprehensive exam. If the student fails 2 questions or does not pass the re-take then the student will be dismissed from the Ph.D. program.*

Part II: Functional Capstone Project- The goal of this exercise is for the student to demonstrate expertise, within a specific research area, as reflected by a critical review of data and theory, as well as propose the future experiments or direction. The student can choose from the two options:

Critical Review Paper

(25-30 text pages + refs)

Grant Proposal (NRSA: Specific AIMS, Research plan and training plan, references+ extra background)

*The quality of work should be appropriate for submission to a granting agency or journal-- regardless of intent to submit.

*The Mentor and committee members can only help with the outline. Drafts cannot be read by the mentor or other faculty. Furthermore, help from other students/individuals is not acceptable and would be considered academic dishonesty.

* All documents will be processed through turnitin.com

* If a student receives a fail, he/she must rewrite the document within 1 month. If a student fails the second attempt he/she will be dismissed from the doctoral program.

Time-line for the Ph.D. in BNS:

